

1 IN THE CLAIMS

2 1. (currently amended) An improved golf club fitting system for fitting a set of golf  
3 clubs to a player comprising the steps:

4  
5 measuring a player's physical dimensions at least including grip strength of the player's hand;

6  
7 selecting a representative golf club having a specific dead weight based on the measured grip  
8 strength of the player's hand equal to the total weight of the representative golf club; said  
9 dead weight being directly proportional to the player's grip strength, specifically that the dead  
10 weight of the golf club is greater when the player's grip strength is greater and vice versa;

11  
12 recording the club length of the representative golf club;

13  
14 determining the swing weight of the representative golf club;

15  
16 computing a balance index (BI) for the representative golf club by dividing the dead weight (DW)  
17 by the numerical value of the swing weight (SW) ( $DW/SW = BI$ ); and

18  
19 using comparing said balance index (BI) determined for the representative golf club to said dead  
20 weight of the representative golf club to determine alternatively the head heavy and head  
21 light deviation for the representative golf club; and

22  
23 generally corresponding balance index and dead weight values determined for said representative  
24 golf club to for at least some of the other golf clubs in a set of golf clubs such that the system  
25 user can generally match different iron and wood golf clubs to the representative golf club  
26 thereby creating a generally ideal matched set of golf clubs for the player.

1           2.     (currently amended) The improved golf club fitting system of claim 1 further  
2 comprising the step of conducting a player profile interview with a player to collect player  
3 information at least including physical limitations, right/left hand player, current playing ability,  
4 player's interpretation of their game and the player's goals for their game and the fitting session.[:]

5  
6           3.     (original)     The improved golf club fitting system of claim 1 wherein said step of  
7 measuring a player's physical dimensions further comprises measuring at least the player's middle  
8 finger length, palm-to-wrist crease length, grip strength, player's height, ground to palm distance and  
9 ground to knuckle of player's longest finger.

10  
11          4.     (currently amended) The improved golf club fitting system of claim 1 further  
12 comprising the steps of determining a player's current equipment and the player's likes/dislikes on  
13 club aesthetics and feel, selecting a current favorite golf club via player inquiry, recording the club  
14 length, shaft frequency, dead weight and of club, swing weight of said current favorite golf club and  
15 the corresponding balance index shaft flex of the current favorite golf club and using comparing the  
16 recorded data of said current favorite golf club to select with said representative golf club having a  
17 generally similar club length, shaft frequency, dead weight and swing weight thereby acting to  
18 identify and assist the user in selecting the correct club set for the player and further to act as a  
19 guideline for narrowing of scope of acceptable club choices for the player.

20  
21          5.     (original)     The improved golf club fitting system of claim 1 further comprising  
22 the step of determining the preferred club head and club shaft configuration for the player at least  
23 factoring recommended shaft length taken from applicable fitting chart, shaft material options  
24 available, adjustments due to player flexibility, swing tempo, and shaft loading effects and additional  
25 grip weight due to size recommendations.

26  
27          <sup>6</sup>  
          ~~5.~~ (original)     The improved golf club fitting system of claim 1 wherein said step of

1 selecting a representative golf club comprises selecting a test golf club having a determined dead  
2 weight, swing weight and balance, said determined dead weight, swing weight and balance  
3 calculated via said determining step, said test golf club having a club head including adjustable  
4 weighting means and adjustable weight positioning means, said test golf club further having shaft  
5 length adjustment means such that the weight and balance of said club head of said test golf club and  
6 the length of said shaft of said test golf club are adjustable to fit the player's determined swing  
7 characteristics.

8  
9 ~~6.~~<sup>7</sup> (canceled).

10  
11 ~~7.~~<sup>8</sup> (currently amended) The improved golf club fitting system of claim ~~5~~<sup>6</sup> wherein the  
12 shaft length and the head weight of said test golf club is adjustable via a plurality of shaft extensions  
13 which are designed to releasably connect to the top end of the test golf club and are made in a series  
14 of progressively lengthened units such as the one-inch extension and the one and one-half inch  
15 extension, said head weights adapted to be releasably mounted into the club head of the test golf  
16 club, said head weights being in progressively heavier units such as the ¼ ounce weight and the ½  
17 ounce weight such that the precise weight and shaft length for said test golf club can be set so that  
18 the player and fitter can determine the best fitting club for the player by finding the best fit shaft  
19 length and dead weight for the best fitting club and use the resulting balance index and dead weight  
20 figures to fit the rest of the desired set.

21  
22 ~~8.~~<sup>9</sup> (original) The improved golf club fitting system of claim 1 further comprising  
23 the step of providing an adjustable lie board including a base plate on which is pivotably mounted  
24 a lie plate which is angle and attitude adjustable relative to said base plate, an angle readout device  
25 mounted on said base plate adjacent said lie plate operative to permit reading of the angle of said lie  
26 plate relative to said base plate, said adjustable lie board enabling use of said representative golf club  
27 during the angle determination section of the fitting process, with angle changes being made via said  
28

adjustable lie board instead of through the use of multiple test clubs with slightly different club head angles.

<sup>10</sup>  
~~9.~~ (original)      The improved golf club fitting system of claim <sup>9</sup>~~8~~ further comprising the steps of placing marking tape on the sole of the club head of said representative golf club, having the player hit at least one shot off of said lie plate of said adjustable lie board, recording the position of the impact mark on said marking tape via said hitting of at least one shot, adjusting the angle of said lie plate relative to said base to bring the angle of said lie plate into general alignment with the angle of the player's swing and repeating said hitting, recording and adjusting steps until the impact mark on said marking tape is generally centered on the club sole in relation to the heel and toe of the club head of said representative golf club.

<sup>11</sup>  
~~10.~~ (canceled).

<sup>12</sup>  
~~11.~~ (canceled).

<sup>13</sup>  
~~12.~~ (currently amended)      An improved golf club fitting system for fitting a set of golf clubs to a player comprising the steps:

measuring a player's physical dimensions at least including grip strength of the player's hand;

selecting a representative golf club having a specific dead weight based on the measured grip strength of the player's hand ~~equal to the total weight of the representative golf club~~, said dead weight being directly proportional to the player's grip strength, specifically that the dead weight of the golf club is greater when the player's grip strength is greater and vice versa;

recording the club length of the representative golf club;

1 determining the swing weight of the representative golf club;

2  
3 computing a balance index (BI) for the representative golf club by dividing the dead weight (DW)  
4 by the numerical value of the swing weight (SW) ( $DW/SW = BI$ );

5  
6 ~~using comparing~~ said balance index (BI) determined for the representative golf club to ~~said dead~~  
7 ~~weight of the representative golf club to determine~~ alternatively the head heavy and head  
8 light deviation for the representative golf club; and

9  
10 generally corresponding balance index and dead weight values determined for said representative  
11 golf club to for at least some of the other golf clubs in a set of golf clubs such that the system  
12 user can generally match different iron and wood golf clubs to the representative golf club  
13 thereby creating a generally ideal matched set of golf clubs for the player;

14  
15 providing an adjustable lie board including a base plate on which is pivotably mounted a lie plate  
16 which is angle and attitude adjustable relative to said base plate, an angle readout device  
17 mounted on said base plate adjacent said lie plate operative to permit reading of the angle of  
18 said lie plate relative to said base plate, said adjustable lie board enabling use of said  
19 representative golf club during the angle determination section of the fitting process, with  
20 angle changes being made via said adjustable lie board instead of through the use of multiple  
21 test clubs with slightly different club head angles;

22  
23 placing marking tape on the sole of the club head of said representative golf club;

24  
25 having the player hit at least one shot off of said lie plate of said adjustable lie board;

26  
27 recording the position of the impact mark on said marking tape via said hitting of at least one shot;

1 adjusting the angle of said lie plate relative to said base to bring the angle of said lie plate into  
2 general alignment with the angle of the player's swing; and

3  
4 repeating said hitting, recording and adjusting steps until the impact mark on said marking tape is  
5 generally centered on the club sole in relation to the heel and toe of the club head of said  
6 representative golf club.

7  
8 <sup>14</sup>  
9 ~~13.~~ (currently amended) An improved golf club fitting system for fitting a set of golf  
clubs to a player comprising the steps:

10  
11 measuring a player's physical dimensions at least including grip strength of the player's hand;

12  
13 selecting a representative golf club having a specific dead weight based on the measured grip  
14 strength of the player's hand ~~equal to the total weight of the representative golf club~~; said  
15 dead weight being directly proportional to the player's grip strength, specifically that the dead  
16 weight of the golf club is greater when the player's grip strength is greater and vice versa,  
17 said representative golf club comprising a test golf club having a determined dead weight,  
18 swing weight and balance, said determined dead weight, swing weight and balance calculated  
19 via said determining step, said test golf club having a club head including adjustable  
20 weighting means and adjustable weight positioning means, said test golf club further having  
21 shaft length adjustment means such that the weight and balance of said club head of said test  
22 golf club and the length of said shaft of said test golf club are adjustable to fit the player's  
23 determined swing characteristics;

24  
25 providing a plurality of shaft extensions and a plurality of head weights for said test golf club, said  
26 plurality of shaft extensions adapted to releasably connect to the top end of the test golf club  
27 and which are made in a series of progressively lengthened units such as the one-inch  
28

1 extension and the one and one-half inch extension, said head weights adapted to be  
2 releasably mounted into the club head of the test golf club, said head weights being in  
3 progressively heavier units such as the ¼ ounce weight and the ½ ounce weight such that the  
4 precise weight and shaft length for said test golf club can be set so that the player and fitter  
5 can determine the best fitting club for the player by finding the best fit shaft length and dead  
6 weight for the best fitting club and use the resulting balance index and dead weight figures  
7 to fit the rest of the desired set;

8  
9 computing a balance index (BI) for the representative golf club by dividing the dead weight (DW)  
10 by the numerical value of the swing weight (SW) ( $DW/SW = BI$ ); and

11  
12 using ~~comparing~~ said balance index (BI) determined for the representative golf club to ~~said dead~~  
13 ~~weight of the representative golf club to determine~~ alternatively the head heavy and head  
14 light deviation for the representative golf club; and

15  
16 generally corresponding balance index and dead weight values determined for said representative  
17 golf club to for at least some of the other golf clubs in a set of golf clubs such that the system  
18 user can generally match different iron and wood golf clubs to the representative golf club  
19 thereby creating a generally ideal matched set of golf clubs for the player.